

small scattered punctures separated by distances greater than their diameters; meso- and metasternum with smaller scattered punctures. *Venter* minutely punctate throughout, the punctures bearing short, fine setae; the first two ventrites very slightly flattened in the middle in the male; the intercoxal process of the first ventrite arcuate. Length, 3-3.8 mm.; breadth 1.3-1.6 mm.

Oahu. Holotype, stored in Bishop Museum, and three paratypes sifted from moss collected from about the roots of a *Metrosideros* tree on the summit of Mount Kaala, March 28, 1937, and one paratype from moss on the ground at the same locality, June 25, 1937. All the specimens were collected by Mr. D. Anderson.

This is the smallest species of the genus thus far described. Its small size, pale coloration, angulate humeri, and its elytral intervals bearing single rows of conspicuous setae will readily distinguish this species. It resembles a diminutive *H. foveatus* but is readily separated from that species.

The sex of four of the specimens is rather uncertain. In rostral characters, all seem to be males. One specimen has the aedeagus protruding and has a characteristic male abdomen, the other three specimens have abdominal characters that are rather intermediate between the male and typical females of other species. The eyes of the male are broader than those of two of the other specimens.

#### 6. *Heteramphus hirtellus* Sharp.

Three specimens in the Giffard collection at the Bishop Museum collected under decaying leaves on damp ground September 15 and 21, 1907 on Mount Tantalus and one specimen taken by E. Y. Hosaka in Kipapa Gulch, July 6, 1933, 2,800 ft., are evidently the only specimens of this species collected since Blackburn sifted the unique type from dead leaves.

#### 7. *Heteramphus swezeyi* Perkins.

The larvae of this interesting species mine the sterile fronds of several species of *Elaphoglossum* ferns. Palolo Valley, Mount Olympus, Waialae-nui Ridge, and Punaluu.

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### *Atelothrus* on Oahu (Coleoptera, Carabidae)

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(Presented at the meeting of July 1, 1937)

The genus *Atelothrus* Sharp was known to occur on all of the main Hawaiian islands except Oahu at the time of the writing of the "Fauna Hawaiiensis". In 1917 (Ent. Mo. Mag. ser. 3, vol. 3, pp. 246-247, 1917) Dr. Perkins described two species from Oahu, and thus the gap in distribution was closed. There are now 19 described species in the genus which is confined to the Hawaiian islands. The

headquarters for the genus is the centrally located island of Maui where 10 described species occur. The others are distributed as follows: Kauai, 1; Oahu, 2; Molokai, 3; Lanai, 2; and Hawaii, 1.

Owing to the diligent researches of Mr. Swezey and others, a series of each of the Oahuan species have been collected and new data is presented herein.

The grooved hind tarsi, atrophied wings, and the single pair of prothoracic setae situated at the posterior angles readily place the following species in *Atelothrus*.

The two Oahuan species of *Atelothrus* may be readily separated by the characters given in the following key:

- Derm very dark reddish brown throughout; with three large elytral foveae between the third and fourth striae, easily seen with the unaided eye, these striae often fused at the foveae.....*A. fractistriatus*.  
 Derm mostly pale yellowish-brown or brown with the head usually darker and in contrast with the paler pronotum and elytra; elytra without foveae between the third and fourth striae; the discal striae straight.....*A. metromenoides*.

*Atelothrus fractistriatus* Perkins (fig. 1: b, d).

Derm very dark reddish-brown throughout, the legs and antennae not or but slightly paler.

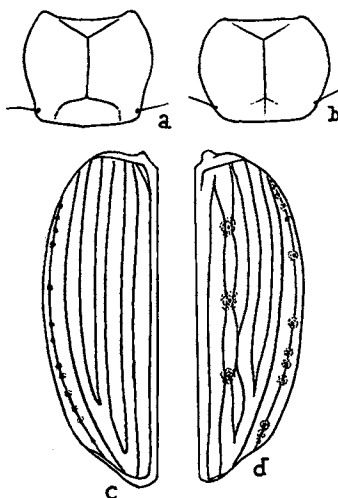


Fig. 1.—*Atelothrus* on Oahu: a, prothorax of *A. metromenoides*; b, prothorax of *A. fractistriatus*; c, elytron of *A. metromenoides*; d, elytron of *A. fractistriatus*.

*Head* with the labrum variable, one third to fully as broad as the clypeus. *Antennae* with the first three segments shiny, bare excepting a whorl of setae at the apex, segments 4-11 densely setose and more opaque. *Prothorax* one fourth broader than long, base and apex truncate, almost evenly arcuate on the sides, but slightly more narrowed behind than in front of the middle, base about as broad as the apex, the baso-lateral angles obtuse, well rounded;

disk not sculptured nor punctate, with the median line distinctly impressed, the anterior constriction distinct. *Elytra* elongate-oval, somewhat more than three times as long as the prothorax, about three fifths as broad as long; intervals nearly flat; first stria joining the second just behind the base, second and third joining in a conspicuous setigerous fovea at the basal third, middle and apical third, three joining four at a distance from, and terminating before, the apex, four usually, but not always, touching or confluent with three between the middle and posterior foveae, five and six joining at about the posterior fovea and not continued much beyond it, seven continued to the apex, eight with the setigerous foveae strongly developed and very conspicuous from near the base to apex. *Wings* hardly longer than the metanotum. *Legs* with the fourth tarsal segment deeply bilobed on the fore and middle pairs, the hind pair less deeply so than the fore pair. *Venter* with the fifth ventrite with three setigerous punctures on either side of the middle of the apical margin in the female. Length, 6 mm.; breadth, 2.5 mm.

Koolau Mountains: Mount Olympus, January and April; Mount Konohuanui, November; Kipapa Gulch, 2,800 ft., July.

This species can readily be distinguished from all others of the genus by the conspicuous elytral foveae which can easily be seen with the unaided eye.

The fusion of the fourth stria with the third between the middle and posterior foveae is subject to variation. One elytron may have them fused while on the other they may be separated. One specimen has these striae obsolete between the foveae.

#### ***Atelothrus metromenoides* Perkins (fig. 1: a, c).**

Derm pale brownish-yellow to yellowish-brown, with the eyes black, and the head infusate and darker than the prothorax or elytra.

*Head* with the labrum and clypeus subequal in breadth. *Antennae* with the first three segments shiny, bare excepting a few long setae at the apices, segments 4-11 densely setose and slightly more opaque. *Prothorax* slightly broader than long, base and apex subequal in breadth, broadest in front of the middle, slightly narrowed and slightly concave on the sides behind the middle, baso-lateral angles obtuse, roundly angulate; disk not distinctly sculptured nor punctate, the median line, subbasal and subapical impressions distinct. *Elytra* ovate, somewhat more than three times as long as the prothorax, seven tenths as broad as long, moderately convex; striae shallow, straight and entire; intervals almost flat, the third without foveae, the setae arising from near or in the third stria, but with the puncture obsolete or nearly so; setigerous punctures of the eighth stria distinct but shallow. *Wings* narrow and but slightly longer than the metanotum. *Legs* with the fourth tarsal segment not very strongly bilobed, deeply emarginate. *Venter* with three setigerous punctures on either side of the middle of the hind margin of the fifth ventrite in the female, evidently but one in the male. Length, 6 mm.; breadth, 3 mm.

Waianae Mountains: Mount Kaala, February, March, April, July; from *Astelia*; evidently restricted to Mount Kaala.

The name of this species was well chosen. It so closely resembles *Metromenus mutabilis* (Blackburn) that the two species could easily be mixed in the same series if the prothoracic setae were overlooked. *M. mutabilis* is only known from the southern part of the Koolau Mountains from Moanalua, Lanihuli, Tantalus, and Waiupe. It has also been found in *Astelia*.